
TRIGG COUNTY

(Trigg County Water Service Area Map)

- Estimated 1999 population of 12,600--95% on public water
- Estimated 2020 population of 16,000--96% on public water
- 460 miles of water lines, with plans for 50 additional miles of lines
- Estimated funding needs for public water 2000-2005--\$4,001,000
- Estimated funding needs for public water 2006-2020--\$0

Trigg County had an estimated population of 12,552 (5,549 households) in 1997 with a projected population of 15,985 (7,518 households) in 2020. Public water is provided to 5,700 households, or over 95 percent of the county's residents. In areas of the county not served by public water, about 80 percent of the households rely on private domestic wells and 20 percent rely on other sources. An additional 90 households are expected to be served by new line extensions by 2020.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
TRIGG								-
Barkley Lake W/D	48	45	1,546	105		1,200	800	3,651
Cadiz	2	41	350					350
TOTAL	50	86	1,896	105		1,200	800	4,001

PUBLIC WATER SYSTEMS

The residents of Trigg County are presently provided water by two community water systems; the Barkley Lake Water District and the City of Cadiz Waterworks, and 12 non-community systems.

BARKLEY LAKE WATER DISTRICT

PWSID: 1110019
System Type:..... COMMUNITY
Owner Type:..... WATER DISTRICT
Surface Source:..... LAKE BARKLEY
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 2.00
Percent Daily Average Production: 58.00

WATER SERVICE AREAS

TRIGG COUNTY

Kentucky

Prepared By:
Water Resource Development Commission

Department for Local Government
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601-8204
502-573-2382 -- 502-573-2939 fax
<http://dlgnt1.state.ky.us/wrdc/>

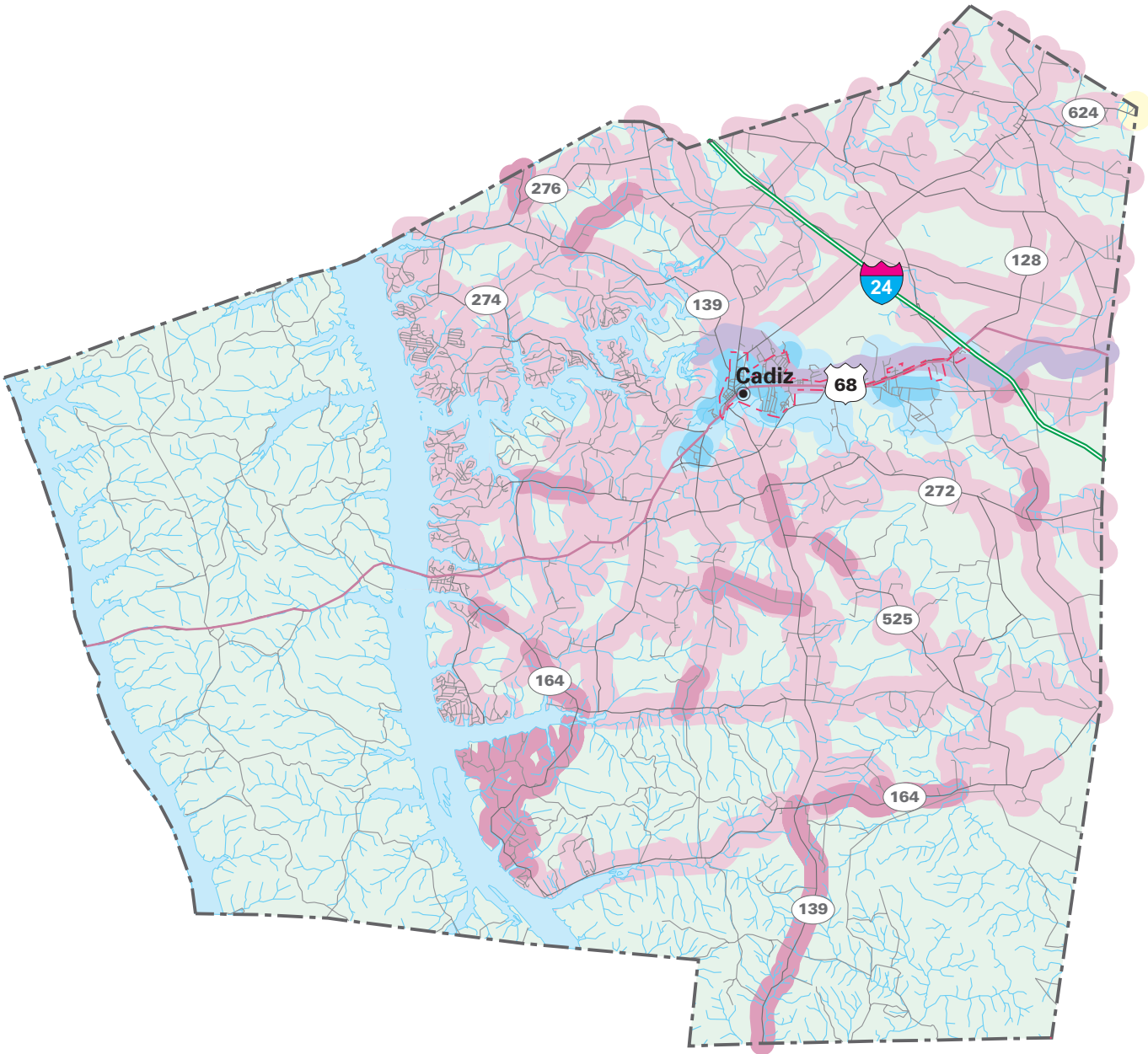
Bob Arnold, Chairman
Lawrence Wetherby, Executive Director

Final GIS & Cartographic Operations By:
Kent Anness & Kim Prough

Data Collection & GIS Input By:
Kentucky Area Development Districts



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WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		HOPKINSVILLE WATER ENVIRONMENTAL AUTHORITY
		CHRISTIAN COUNTY WATER DISTRICT
		CADIZ MUNICIPAL WATER COMPANY
		BARKLEY LAKE WATER DISTRICT

Total Tank Storage Capacity (gallons):.....	1,950,000.00
Total Service Connections:	4,436.00
Number of Employees:.....	13.00
Treatment Operator Class:.....	3D
Distribution Operator Class:	3A
Customer Rate for 1,000 Gallons:.....	5.57
O/M costs 1997:.....	695,524.00
O/M costs per Service Connection:	156.72
Net Revenue 1997:	206,820.00
Total Water Produced 1997 (gallons):.....	355,588,000.00
Water Sold 1997 (gallons):.....	248,288,000.00
Unaccounted-for Water 1997 (%):	19.38

Barkley Lake Water District gets its water from the nearby Barkley Lake and according to the Trigg County Water Supply Plan has an adequate supply of raw water to support any future needs. The District currently services 4,248 households in Trigg County, 75 in Lyon County and 43 in Caldwell County. Additionally, the District sells treated water to the Christian County Water District. The Districts operates a Water Treatment Plant that has a production capacity of 2.0 million gallons per day. On an average day the plant produces approximately 1,175,000 gallons of potable water or less than 60% of its designed capacity. The district's storage system consists of six tanks located at various points within its territory and a clear well located at its treatment facility. The total storage capacity of the district is 1,950,000 gallons. The calculated charge for 5,000 gallons of treated water (residential usage) is \$27.83 which when compared to other districts within the Pennyryle is considered quite reasonable. Lake Barkley Water District has a total of 13 employees with 6 certified water treatment plant operators and 5 certified to operate the distribution system. The other employees provide billing and financial oversight.

The need for water service expansion in the Barkley Lake territory results primarily from the rapid subdivision development in many of its' rural lakefront areas as well as other areas. According to a study conducted by the Kentucky State Data Center in Louisville, Trigg County has experienced growth in excess of 19.5% from the year 1990 through July 1998. That same study also touts Trigg County as one of only two Western Kentucky Counties that is projected to experience growth of 50% or more by the Year 2020. At present, within the territory of the Barkley Lake Water District there are approximately 275 households that aren't currently being served. In order to serve these households, the Districts' distribution system will require many upgrades to increase and maintain an adequate flow and pressure.

To meet current as well as the future needs of the county, projects have been selected and ranked by Trigg County system representatives, elected officials and the Pennyrile Area Development District's Board of Directors as being crucial to the future growth and development of the region.

CADIZ MUNICIPAL WATER COMPANY

PWSID:..... 1110054
System Type:..... COMMUNITY
Owner Type:..... MUNICIPAL
Surface Source:..... CADIZ SPRING
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 0.72
Percent Daily Average Production: 50.00
Total Tank Storage Capacity (gallons):..... 980,000.00
Total Service Connections: 1,632.00
Number of Employees:..... 9.00
Treatment Operator Class:..... 2D
Distribution Operator Class: 3A
Customer Rate for 1,000 Gallons:..... 3.83
O/M costs 1997:..... Not available
O/M costs per Service Connection: Not available
Net Revenue 1997:..... Not available
Total Water Produced 1997 (gallons):..... Not available
Water Sold 1997 (gallons):..... Not available
Unaccounted-for Water 1997 (%): Not available

The City of Cadiz Waterworks receives its water from a spring located within its territory. According to the Trigg County Water Supply Plan Study (Phase 1) that was conducted in 1995 it was found not to be an adequate supply to meet future needs in terms of both quantity and quality. In addition to the spring the city also has entered into a trade agreement with the Barkley Lake Water District. By way of this agreement, Cadiz Water System customers located just west of the city are served through a master meter owned by Lake Barkley and in turn customers of Lake Barkley located on Rocky Ridge Road are served through a mater meter owned by the City of Cadiz. The system currently serves 1,491 total households, with 510 of those located outside of the city's corporate limits, as well as 218 commercial and 18 industrial customers. The system operates a water treatment plant that has a production capacity of 720,000 gallons per day. On an average day the plant produces approximately 443,000 gallons of potable water or about 62% of its designed capacity. The system has a total storage capacity of 978,000 gallons in four tanks. The calculated cost for

5,000 gallons of treated water (residential usage) is currently \$19.14 which, when compared to other systems within the Pennyriple, is considered quite reasonable. The Cadiz Water System employs 3 certified water treatment plant operators. Additionally, there are other operators that are located at its Sewer treatment facility and 3 employees that handle the billing and financial concerns of the system.

The City water distribution system currently has many problem areas, especially within its original downtown area, which was constructed in the early 1920's. Old steel and cast iron water lines have rusted and deteriorated to the point that there are numerous leaks. Also in the same areas small water lines create problems with volume and pressure. The city from time to time has made some improvements to these problem areas but much remains to be done. Many of the lines are located under paved and concrete streets, which make the replacement a difficult, an expensive undertaking. To meet current as well as the future needs of the county, projects have been selected and ranked by Trigg County system representatives, elected officials and the Pennyriple Area Development District's Board of Directors as being crucial to the future growth and development of the region.

OTHER SYSTEMS

LBL EEC EMPIRE FARM

LBL EEC Empire Farm is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 24,000 gallons per day. The water source is wells.

LBL NORTH ENTRANCE STATION

LBL North Entrance Station is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 4,800 gallons per day. The water source is wells.

LBL HILLMAN FERRY B

LBL Hillman Ferry B is located in Trigg County. The system serves a population of 42 and has 400 service connections. The federal, non-transient, non-community system has treatment capacity of 73,000 gallons per day. The water source is wells.

LBL CRAVENS CREEK

LBL Cravens Creek is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 14,400 gallons per day.

TVA-LBL WOODLAND NATURE CENTER

TVA-LBL Woodland Nature Center is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 4,800 gallons per day. The water source is groundwater from wells.

LBL BIRMINGHAM FERRY/YALE

LBL Birmingham Ferry/Yale is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 14,400 gallons per day. The water source is wells.

LBL ADMINISTRATION BUILDING

LBL Administration Bldg is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, non-transient non-community system has treatment capacity of 31,200 gallons per day. The water source is wells.

LBL MAINTENANCE CENTER

LBL Maintenance Center is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, non-transient non-community system has treatment capacity of 24,000 gallons per day. The water source is wells.

LBL CAMP ENERGY

LBL Camp Energy is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 14,400 gallons per day. The water source is wells.

TVA-LBL FENTON LAKE ACCESS C/O

TVA-LBL Fenton Lake Access C/O is located in Trigg County. The system serves a population of 25 and has 2 service connections. The federal, transient non-community system has treatment capacity of 15,120 gallons per day. The water source is wells.

LBL WRANGLERS CAMP

LBL Wranglers Camp is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 24,000 gallons per day. The water source is wells.

LBL VISITORS CENTER

LBL Visitors Center is located in Trigg County. The system serves a population of 25 and has 1 service connection. The federal, transient non-community system has treatment capacity of 43,200 gallons per day. The water source is wells.

PRIVATE DOMESTIC SYSTEMS

About 600 people in Trigg County rely on private domestic water supplies: 480 on wells and 120 on other sources.

In the eastern two-thirds of Trigg County more than three-quarters of the drilled wells in the uplands are adequate for a domestic supply. Yields as high as 50 gpm have been reported from wells penetrating large solution channels. In the low-lying areas of the Little River and its major tributaries, most wells are inadequate for domestic use unless the well intercepts a major solution opening in the limestone in which the yield could be very large. Wells in the uplands of the LBL in the western third of the county generally do not yield enough water for domestic use. However in the lowlands adjacent to Kentucky and Barkley Lakes three-fourths of the wells yield enough for a domestic supply and can sometimes produce more than 5gpm.

Springs with flows ranging from a few gallons per minute to 3,000 gpm are found in the county. Minimum flow generally occurs in early fall, maximum flows in late winter.
